**Fuel Data**

- **Fuel Form**: \(^{238}\)Plutonium-Zirconium Alloy

- **Fuel Required**
  - Weight Pu-238/Source (grams): 6 @ 176; 1 @ 300
  - Weight Fuel/Source (grams): 6 @ 242; 1 @ 411

- **Heat Sources**
  - Number Fabricated: 7
  - Watts (th)/Source: 6 @ 100; 1 @ 170
  - Operating Temperature: 550°C

- **Materials of Construction**
  - Liner: Tantalum
  - Strength Member/Clad: Haynes Alloy No. 25
  - Geometry: Cylinder - 5.767 in. x 0.981 in. O.D.
  - Weight/Source (pounds): 1.35

**Dimensions**

- **Liner**
  - Length (inches): 4.900
  - Diameter (inches): 0.774
  - Wall Thickness (inches): 0.02
  - Cap Thickness (inches): 0.03

- **Strength Member/Clad**
  - Length (inches): 5.256
  - Diameter (inches): 0.981
  - Wall Thickness (inches): 0.10
  - Cap Thickness (inches): 0.28

**Fabrication**

- Strength Member - EB closure welded plus TIG welded backfill hole
- Liner - TIG welded in argon atmosphere

---

![Diagram of SNAP-19C fuel element](attachment:SNAP-19C_diagram.png)
The SNAP-19C heat sources were fabricated at Mound Laboratory in 1965 for the Martin Company, the systems contractor. Sponsored by the U.S. Navy, the SNAP-19C system was used to provide electrical power for remote telemetry stations. Heat source fabrication work at Mound was sponsored by the AEC Division of Reactor Development and Technology.